

*Wonderful*

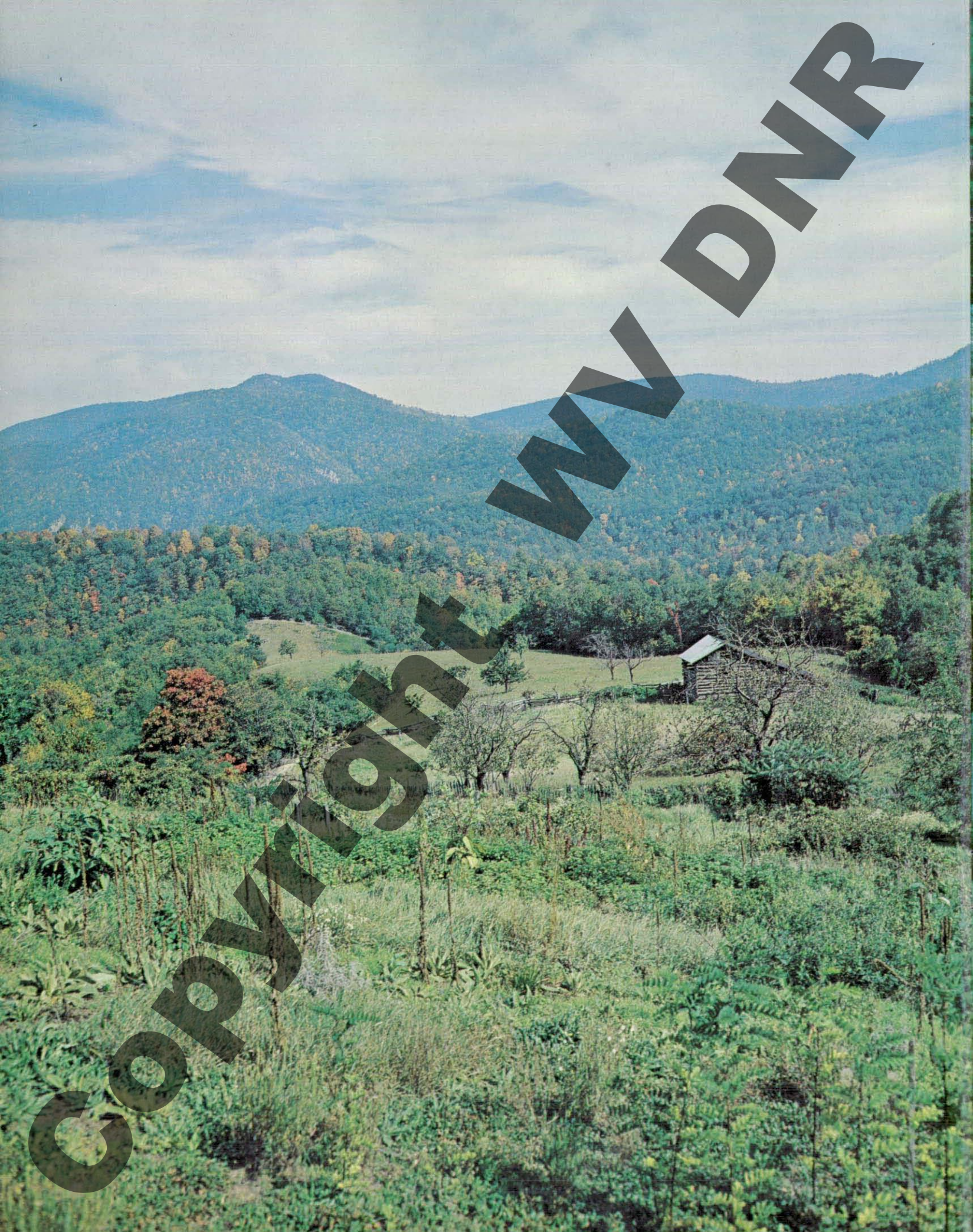
# West Virginia

SEPTEMBER 1970

25¢

*tee time in  
state parks -- page 7*







State of  
WEST VIRGINIA



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COVER: Par 3 hole on Pipestem's 18-hole course offers spectacular view of Bluestone River canyon, too, at state's most plush state park. Arnout Hyde Jr.

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Viewpoints of our authors do not necessarily reflect those of the Department of Natural Resources.

Early fall gently caressed foothills in  
Grant County. ARNOUT HYDE JR.



Legendary Land . . .

## SOUTHERN WEST VIRGINIA

ROBERT LEO SMITH

A LEGENDARY LAND is the country south of the Kanawha River. Its history is more violent and bloody than any western frontier and its heroes just as big. Unlike the west, its legends and history have not been exploited or romanticized out of proportion to their occurrence.

While tourism and recreation are being promoted for West Virginia, the emphasis goes to the scenic, accessible eastern highlands. Forgotten and rarely if ever mentioned is southwestern West Virginia, that part of the state that embraces Logan, Boone, Mingo, Wyoming and McDowell Counties and

adjoins Pike and other eastern Kentucky mountain counties. It is coal and timber country, drained by the Tug and Big Sandy Rivers and it contains some of the most rugged landscape in eastern North America.

The land is so cut and dissected by tree-like drainage patterns that the landscape seems like a jumble of hills thrown together in the dim geologic past. The hollows or valleys are so narrow that it seems as if you have to push the hills aside to get through. The hills seem to surround and engulf you and the sides are so steep they seem straight up. In the valley or hol-

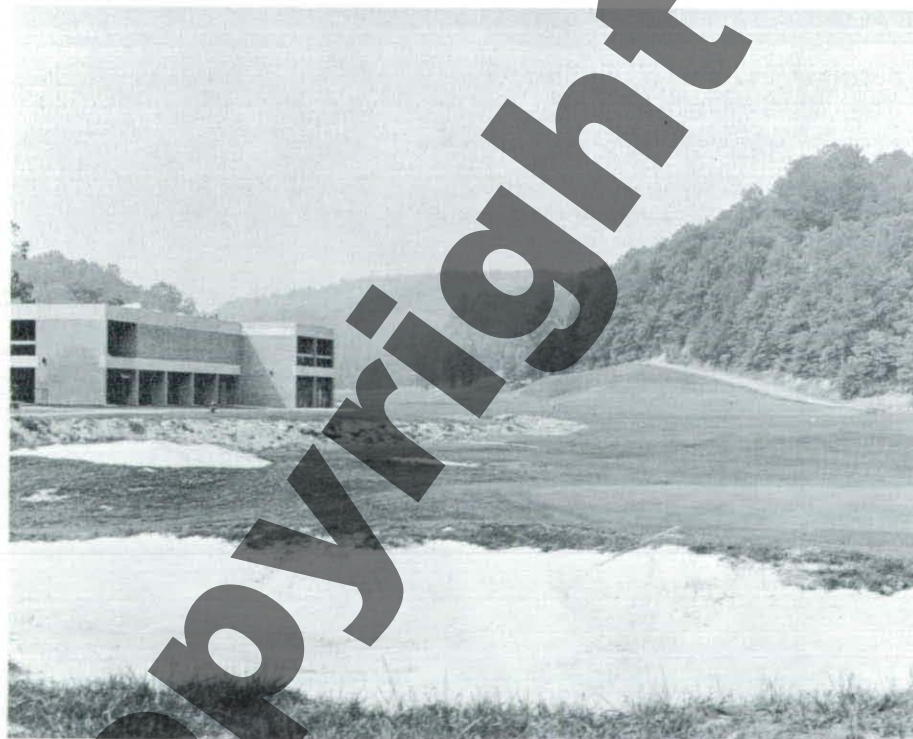
lows one never sees a sunrise and the shadows of evening come by four in the afternoon.

It has long been and still is relatively inaccessible. Settled in the 1790s and cut off from the mainstream of American life by the 1850s, the region was forgotten until it was discovered by the timber and coal industry in the 1890s. Exploited by timber, ravished by coal and plagued by poverty, the region still is one of the most colorful in eastern North America. Hard-core Appalachia, it has been "discovered" by the radio, t-v and press and exploited by outsiders as an example of social ills and sensationalized by those who neither understand the region's value systems or the mountain way of life.

The scenery can be spectacular, especially after a rain when mists begin to rise out of the hollows and add a sort of mysteriousness about the country. Then you immediately understand why there can be any number of "haunted hollers" and ghostly places.

There are campgrounds at Cawaylingo State Forest in Wayne County and at Panther State Forest in Mingo County and primitive camping grounds on Big Ugly and Laurel Creek Public Hunting Areas near Dingess, Mingo County.

**THE BEST APPROACH** to the region is Route 119 out of Charleston to Logan. The roads are good but winding as you would expect.



DICK MATHEWS PHOTO

Modern golf clubhouse, fine 9-hole golf course, swimming pool are among features of the 4,000-acre Twin Falls State Park in Wyoming County, near Mullens and Pineville.

Drawdy Creek Falls along Rt. 119 in Boone County is charming sight in southern West Virginia.

ARNOUT HYDE JR.









BOB COMBS PHOTO

Laurel Lake in Mingo County, maintained by the Department of Natural Resources, is popular with anglers, picnickers.

On your way you cross over Blair Mountain. Blair Mountain may seem just a little like other West Virginia mountains except steeper, but in the history of the coal industry it is a monument to miners' rights in the state. Unionism came late to Logan and other mountain coal fields, and strong and often violent methods were used to keep unionizers out of the Logan coal fields. In time, union miners, frustrated at their efforts to organize the southern coal fields and incensed at the use of martial law in Mingo County, organized a march to Logan on Aug. 24, 1921. They were intercepted on Aug. 31, 1921 by a

force of state police, volunteers and militia. For almost a week the forces fought along a 25-mile front with the heaviest and bloodiest fighting taking place on Blair Mountain. The arrival of federal troops quelled the insurrection. Although nearly 500 were arrested for treason against the State of West Virginia, and murder, all charges in one way or another were dropped and sentences commuted.

**ALTHOUGH LOGAN** looks like, and is, a coal town, the site is historical back to Indian times. Logan in part is an island in the Guyandotte. The present site of

Logan was one of the few areas in the mountains occupied by Indians, the last of which were a tribe of Shawnees under the Indian Princess Aracoma, daughter of Chief Cornstalk. Legend has it that a British soldier under General Braddock by the name of Boling Baker was captured by an Indian war party and taken to Chief Cornstalk. Upon the intercession of Aracoma, Baker's life was spared. To make a long story short, Baker was initiated into the tribe, married Aracoma, and together with a group of Shawnees settled Logan Island. The Indians were destroyed by a white settler raiding party from Greenbrier





Picnic, campground area, Laurel Creek Public Hunting and Fishing area, Mingo County.

Valley under John Breckenridge in April, 1790. During the skirmish, Aracoma was killed and at her dying request was buried on the Island. Boling Baker, who was on a hunting trip when the skirmish occurred, escaped from the area.

FROM LOGAN one can travel west to Mt. Gay and to Dingess, named after William Dingess, an Indian fighter and first permanent white settler in the region. At Dingess take the road to Lenore. It is an old railroad grade that winds through the forest and Laurel Creek Public Hunting Area. Then suddenly you come upon it, the Dingess tunnel and an experience that is well worth the trip. To reach Lenore from Dingess or Dingess from Lenore you have to go through the old railroad tunnel, a long, one lane unlighted passage beneath a mountain.

After the Dingess tunnel, you might head for Williamson on Route 119 through Omar and Hatfield-McCoy Country. On a hillside near Sarah Ann is the Hatfield Cemetery. After a steep climb up the hill you will come to the grave of "Devil Anse" Hatfield, leader of the Hatfield faction in the bitter Hatfield-McCoy feud. Marking the grave is a life-sized statue of Devil Anse mounted on a four-foot granite base. The statue, modeled after photos of the mountaineer, was imported

from Italy at the cost of \$3,000.

In Williamson is one of the most unusual restaurants in the state—The Lock, Stock and Barrel. Built through community self-help by Job Corps members and local youths, its decor features old weathered-wood paneling and an aqueduct-like divider of arched bricks. A copper-hooded open fireplace surrounded by antiques of the pioneer area exudes hospitality. In addition to regular fare, the restaurant features French cuisine prepared by the chef who once worked for the Kennedy family.

Drive through Williamson and down Route 49 to Matewan and



Pinnacle Rock in Mercer County, scenic feature in southern West Virginia.

you are very near the spot where the Hatfields did in the three McCoys. The exact depression in which the bodies were found has been destroyed by a road on the Kentucky side of Tug River.

The country isn't for the average tourist. Yet, for the West Virginian who really is interested in seeing some of the country that has made West Virginia famous, a few days south of the Kanawha may be well worth some autumn travel time. ➔

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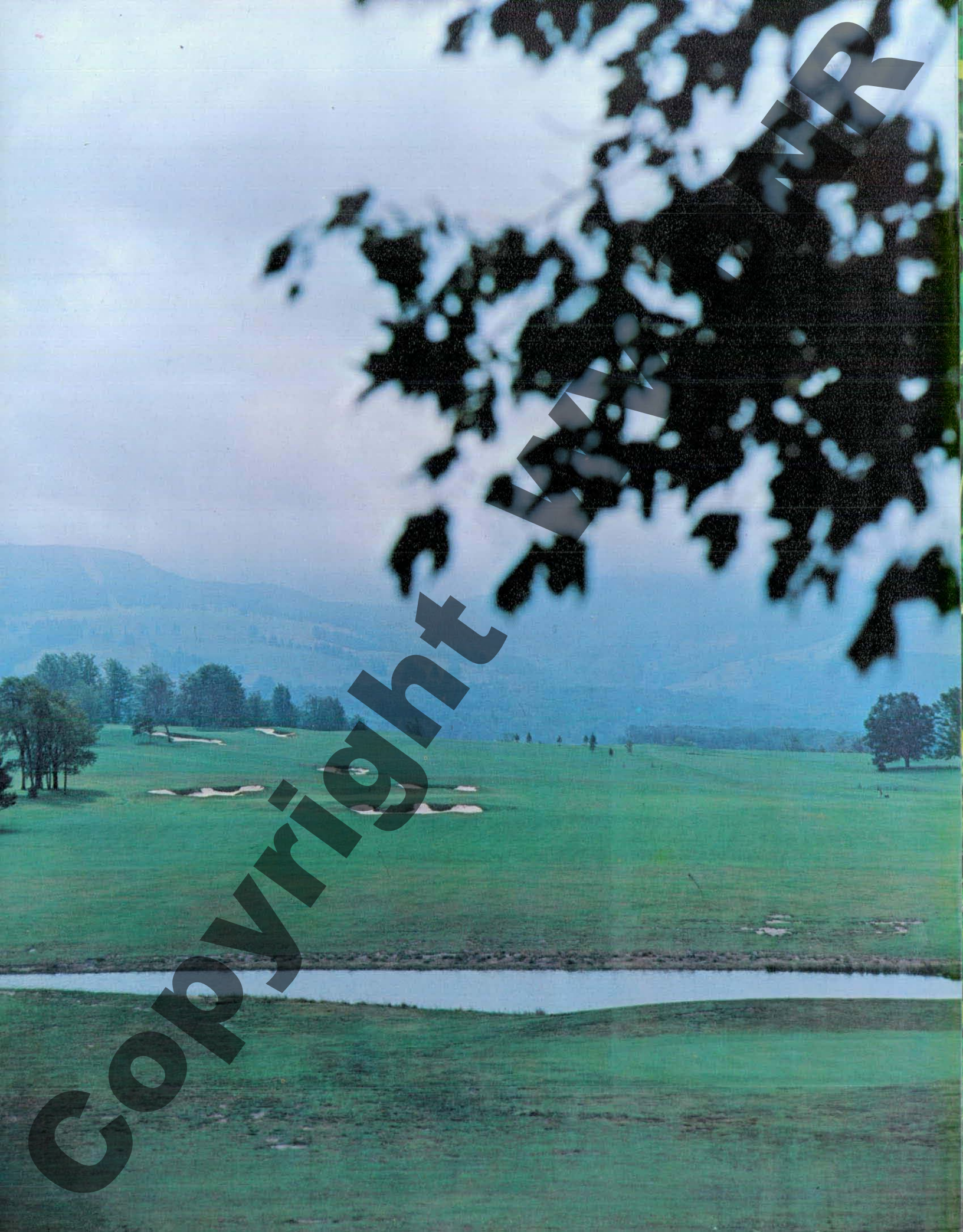
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# tee time at state parks

## COLORFUL FALL FOLIAGE

fringing lush fairways in three West Virginia state parks whets a golfer's enthusiasm like two birdies in a row. Two fine golf courses at Pipestem State Park, a nine-hole regulation layout at Twin Falls, and an 18-hole championship course at Canaan Valley State Park put the state of West Virginia in the big time golf business and its citizens on some of the finest courses in the nation.

These four magnificent golf courses fulfill a long yearning by Mountain State golfers to be able to play public courses comparable to any private lay-outs in the state—and the United States. Green fees are reasonable, and modern clubhouses are already available at Pipestem and Twin Falls.

Designed by a nationally-known golf course architect, Geoffrey Cornish, the courses make intri-

Canaan Valley State Park's 18-hole championship golf course is one of the world's most beautiful layouts. Although golf clubhouse has not been completed, the sweeping course has been in play two years.

ARNOUT HYDE JR.

guing use of terrain and natural hazards. There are no "cardiac" holes. All courses have irrigated fairways and white sand bunkers.

The popular 18-hole course at Pipestem, of championship caliber, measures 6,800 yards from the back tees—par 72. There are four par-5 holes, 10 par 4s and four par 3s. The par-3, 17th hole has a "Pebble Beach" hazard where the golfer shoots across a small canyon, or the timid may take the longer but safer route to the hole. To the right of this demanding hole is a spectacular view of 1,200-foot Blue-stone River canyon.


Like Pipestem's 18-hole course, the par-3 layout has long and lush tees. The greens are the largest in the world for a par-3 course. Native white pine and dogwood have been left standing in strategic areas as natural hazards.

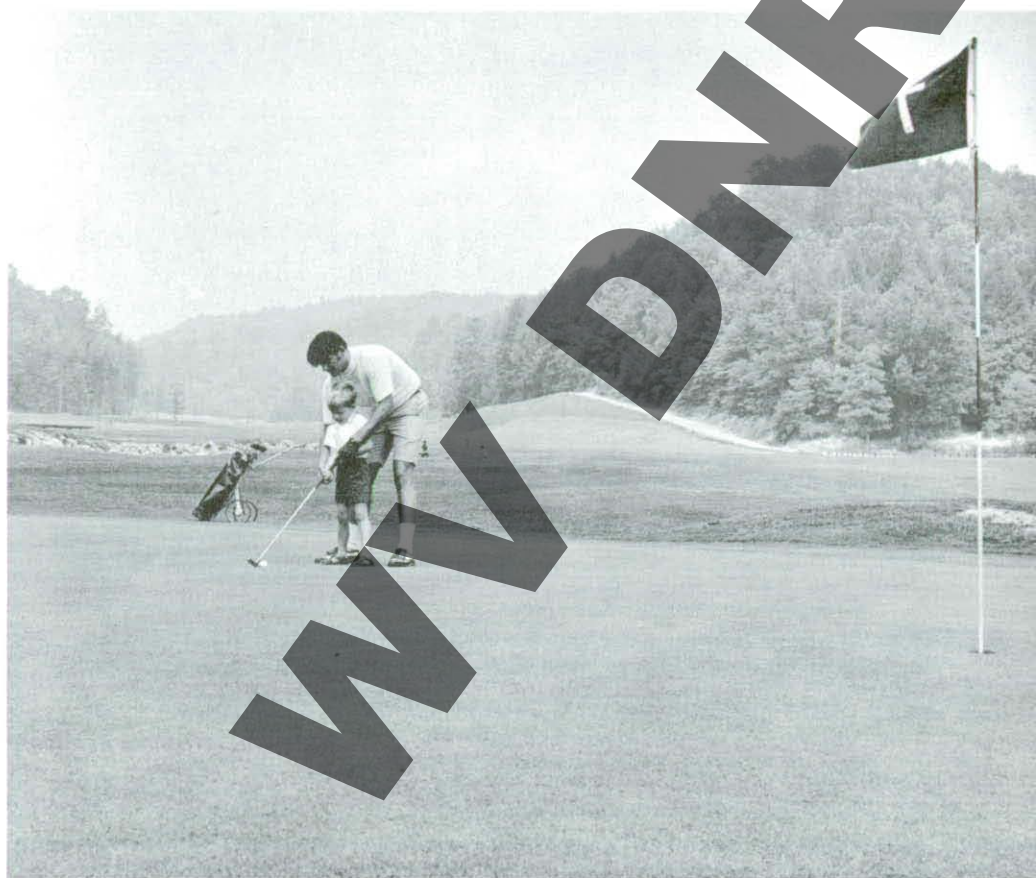
Canaan Valley's 18-hole course in Tucker County at an elevation of 3,500 feet offers incredible

mountain scenery, yet the course is gently rolling. Spruce, balsam, maple and beech dot the course along with small lake hazards. Canaan has 10 par-4 holes, four par 5s and four par 3s. The 6,800-yard layout has a par 72. While the golf clubhouse has not been built, the course has been in play two years.

The nine-hole course at Twin Falls State Park in Wyoming County logically follows a meandering creek, subtly dammed for hazards and white sand bunkers. The greens are large and immaculate. A new golf clubhouse, flanked by a well-water swimming pool, is handy for visitors.

The golf welcome mat is out for West Virginians and visitors to four of the finest golf courses in the world. Fall is tee time too, at West Virginia's three newest state parks.

Hold your head still and hit 'em down the middle! 



Immaculate greens, lush fairways and long tee areas make the 9-hole course at Twin Falls State Park a solid draw to visitors at the state's newest park.

DICK MATHEWS PHOTO



Called buzzards in West Virginia,  
a weird member of nature's family

## THE TURKEY VULTURE

ROGER WILSON

Reprinted from WYOMING WILDLIFE

**THE TURKEY VULTURE** is perhaps the most repugnant bird in North America because of its use of decaying animals as food. Accounts of vultures feeding on putrid meat and gorging themselves to the point of regurgitation only to begin feeding once more, are repulsive to most people. Even the sight of this bird perched on a scraggly tree limb, its blackish, drab color poured over stooped shoulders, and its naked red neck and head, save a few bristles, is unattractive at best. This wide-ranging great avian scavenger leads a solitary life apart from other birds except its own kind.

Though perhaps repulsive in most respects, the turkey vulture or turkey "buzzard" fulfills an important function as part of nature's plan. A wise man once said, "There is some good in all things." Let's learn more about this bird which is scorned by so many.

On the ground the vulture is an ugly bird, but in the air he is a thing of graceful beauty. This master of the art of soaring wheels by the hour high in the sky, turning in lazy circles and spirals.

The vulture is a member of the Order *Falconiformes*, the raptors, which, in contrast to the owls, seek their prey by day. This group of birds is robustly built with powerful wings. Turkey vultures may weigh as much as six pounds and have a wing spread of six feet; from a distance they appear very similar to the golden or immature bald eagles. Unlike the mighty eagles, however, a vulture's bill is not sharply curved or pointed and, instead of the feet



having curved needle-sharp talons, they have small nails and an elongated middle toe well adapted for walking on the ground or steady-ing the large bird as it stands on the carrion it is devouring. Flying overhead, the turkey vulture is identified by two-toned black and gray wings and the tail is rounded at the tip and carried nearly closed.

Though the annual distribution of turkey vultures extends from southern Canada to northern Mexico and from the Pacific to the Atlantic Ocean, they migrate into the southern portion of their range in the winter and move north to nest and raise their young during the spring and summer months. When the migrations begin, flocks of a few birds to as many as a hundred or more fly at heights as great as 4,000 to 5,000 feet. On calm days in the spring and fall these large birds are sometimes seen collected in trees apparently waiting for enough wind to resume their flight.

**ONE FALL AFTERNOON** I observed four vultures perched on four consecutive fenceposts with their great wings almost fully extended. Hardly a movement could be detected and they resembled black marble statues. They were

able to fly, but presumably the air currents were not strong enough for them to continue their long flight without a great deal of effort.

When the location for laying the eggs is finally chosen, little attempt is made to construct a nest. Both the male and female may spend some time arranging rotten wood chips in the top of a hollow tree or moving a few stones on a ledge of a cliff. The spotted eggs, usually two in number, rarely one or three, are then laid at the selected site.

Incubation of the pair of eggs requires about 30 days and apparently is the responsibility of the female. During this time, the male bides his time circling lazily on a cushion of air in the clear spring sky, scanning the earth below for food. In the evenings a few vultures may gather to roost on the dead limbs of a yellow pine which clings to a steep canyon wall or stands among large boulders and rock outcroppings. In the early morning the great dark birds sit with their wings extended to catch the warmth of the sun's first rays and on dull, cloudy days when the air is still, they may remain on their roost throughout the day as without moving currents of air they find flying difficult.

Damp, helpless, and hungry, the young emerge from the shell in the latter part of June. The serious business of providing for the young begins for the adults. Because the vulture has relatively weak feet, they are forced to convey the food to their young by means other than by holding it in their talons as do their relatives,



the hawks and eagles. The adults must swallow the food and regurgitate it upon arrival at the nest. Thus, the association of the odor of decomposing animal matter with hunger and its satisfaction is one of the first that the nestlings learn to make.

One observer described the feeding process which he watched from a blind on the side of a cliff in this manner: "Both young rushed toward the female parent with wide-spread wings. The first to reach her thrust its bill well into the parent's gullet, the old bird stretching out low over the rock to facilitate the exchange of regurgitated food. The feeding process was carried on so vigorously that it resembled a tussle, both birds swaying their heads up and down and from side to side and balancing themselves by raising their wings."

Providing enough food for themselves and the rapidly growing young requires a great deal of effort on the part of the adults. They range far and wide riding the currents of air searching the countryside from their vantage point high above. When a dead animal is spotted, a black form drops to the carcass from the sky. Shortly it is joined by another, and another, and soon, where no bird was previously seen, many are struggling about the feast, be the meat fresh or days old.

While we may turn in physical revulsion from contemplation of this habit, we may ponder on the adaptations that seemingly give these birds absolute immunity to the poisons generated in decaying flesh that would destroy any creature of ordinary digestion.

**VULTURES** may accelerate death by harassment but they do not kill the animals upon which they feed. When the carcass of an animal is discovered, in many cases the turkey vultures must share and fight not only among themselves but with eagles and coyotes. Vultures quickly learn where to search for food as they regularly patrol beaches and rivers for dead fish and highways where cars frequently kill small birds, snakes, rabbits and other small

animals. Some buzzards seem to have learned to watch the actions of dogs or coyotes whose activities may indicate the presence of carrion concealed in caves or holes. There is also the probability that the presence of buzzing flies may indicate to the buzzard the presence of a concealed food supply.

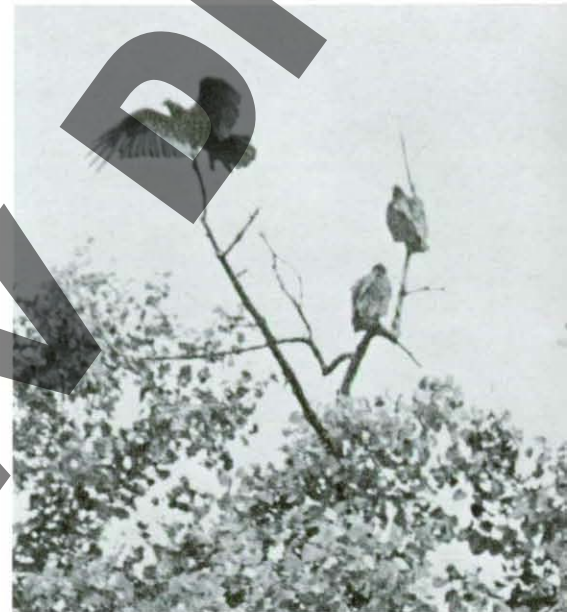
A long-standing, and still not clearly settled question concerning the turkey vulture, is whether these scavengers locate the carcasses on which they feed through sight or through the sense of smell. Many experiments have been tried in attempts to outwit the buzzard and discover the answer to the question, but no test has clearly done so. It seems safe to say that both a keen sense of sight as well as a good sense of smell contribute to the vulture's ability to detect food.

While waiting for their parents to bring food to the nest, the young spend much of their time sunning themselves and continually exercising their wings, spreading them out to their full extent under the warmth of the sun.

Growth and development is rapid, but the juvenile vultures remain in or about the nest 10 to 12 weeks before they are fully feathered and capable of flight. The plumage of the young is a dull brown color and their naked head is blackish or vivid brown, not red as that of the adult. If disturbed or frightened, a young bird utters a curious groaning or hissing sound like an angry cat and may turn its back striking the ground sharply with the tips of its spread wings in a manner that is truly startling.

Adult vultures are silent except when they are frightened or are fighting for food. By expelling air from the windpipe, they create a hiss similar to that heard when hot metal is thrust into water.

**FOR MANY YEARS** turkey vultures were protected, particularly in the southern states, for their cleaning services in removing carrion, but in the 1930s it became a common belief that vultures were responsible for the spread of hog cholera by feeding on bodies of animals that died from the



disease and then carrying the germs to uninfected pastures. In some sections the turkey vulture was subjected to persecution and bounties were paid for their destruction. Studies of vultures which had fed on hog cholera victims and then were exposed to uninfected animals showed there was no spread of the disease by the turkey vulture and oppression of the silent scavenger diminished.

Milliners once sought the feathers of the turkey buzzard for their hats. Thus, the bird was pursued for yet another reason.

The turkey vulture, living on carrion, is the sanitarian of the valleys and plains assisted by the raven, crow and magpie. Scavengers have a necessary though unaesthetic function of quickly putting to use decaying carcasses which otherwise might constitute a health hazard to humans.

Though the turkey vulture is not prized as a sporty game bird by hunters, nor sought by bird watchers looking for striking colors, the vulture is important and useful—a vital part of nature in the world around us. ♣





Thick woodlands around Kanawha Airport at Charleston reduce noise of aircraft.

## TREES — Nature's Way to Diminish Noise

Northeastern Forest Experiment Station  
Upper Darby, Pennsylvania

If city sounds are getting you down, perhaps you need to plant some trees.

Men have used trees as sound barriers to cut down on noise pollution since ancient times. Now forestry researchers are finding some scientific validity in this common sense practice. Experimental work on sound propagation by Forest Service research has shown that shrubs and trees—if used correctly—can play a major part in reducing noise.

Plant a tree, or plant two or three, and you will have produced a natural sound barrier. On the horizon may be an end to your migraines and frustrations, and the beginning of a more pleasant life.

Each 100-foot width of trees can absorb about 6 to 8 decibels of sound intensity. This may seem like a small amount in light of the fact that normal speech generates about 48 decibels, a busy intercity highway, 72 to 78, a barking dog, 92, a beeping horn, 110, a screaming jet, more than 140. Yet a reduction, no matter how slight, is welcome, since it can make the difference between a livable environment and one that is extremely unpleasant. We should also bear in mind that this 100-foot screen has a multiplier effect. One hundred and fifty will de-

crease the noise level to 9 to 12 decibels, 200 feet of trees will lower the noise level by 12 to 16 decibels, and so on.

According to researchers, sound levels above 50 decibels may be irritable to human beings; sound levels in excess of 130 decibels may become harmful.

How can trees be used correctly to give their maximum benefit as sound barriers?

Many factors contribute to sound control by trees. These factors include size, position, and density of trees, as well as certain meteorological conditions—like wind, moisture, temperature and terrain.

Along highways, dense plantings of large trees will effectively lower the level of noise, particularly if the sound source is lower than the receiver. This means that trees planted uphill of a highway will give maximum sound control.

Trees will also effectively moderate wind and temperature, and, in so doing, reduce any influence that these two factors might have on the transmission of sound.

Often the human senses of sight and sound can reinforce one another, so that seeing what causes a noisy discomfort will tend to aggravate it. On the con-

trary, if the source of sound is made invisible, the sound will not seem so harsh to the ear. As another approach to noise abatement, trees can be planted to screen or camouflage noisy neighbors, and this will have a marked effect on lowering unwanted sound.

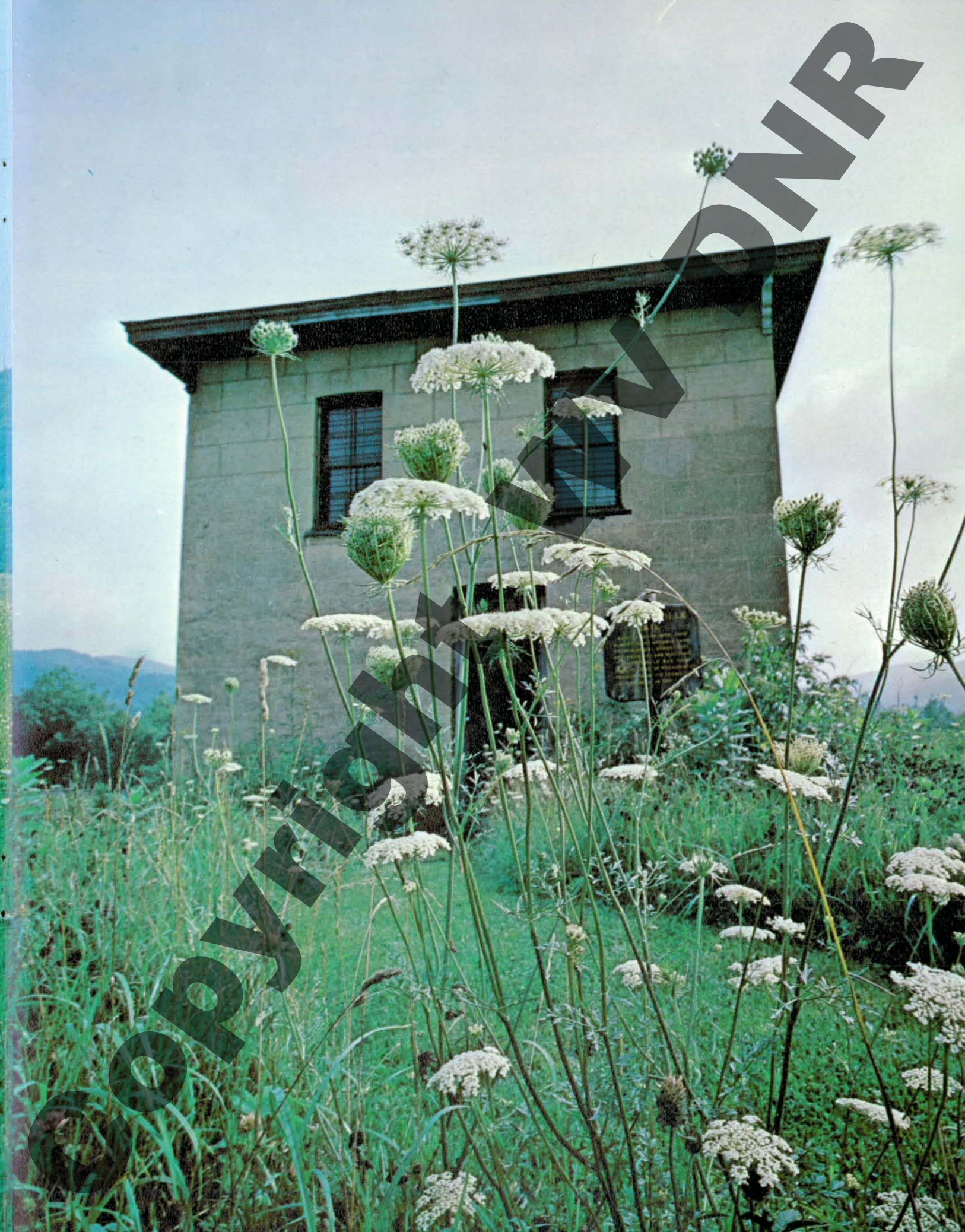
Consideration should be given to the location of the source of sound. In the case of aircraft, a belt of trees around the airport will reduce sound levels when the aircraft are on the ground. However, once they are airborne the sound has only to penetrate through the thin forest canopy.

Still, if it's city noises that are getting you down, perhaps you should remove your earmuffs, take away the blinders and plant yourself some trees. Trees are one of nature's ways to make your environment more pleasant. ♣

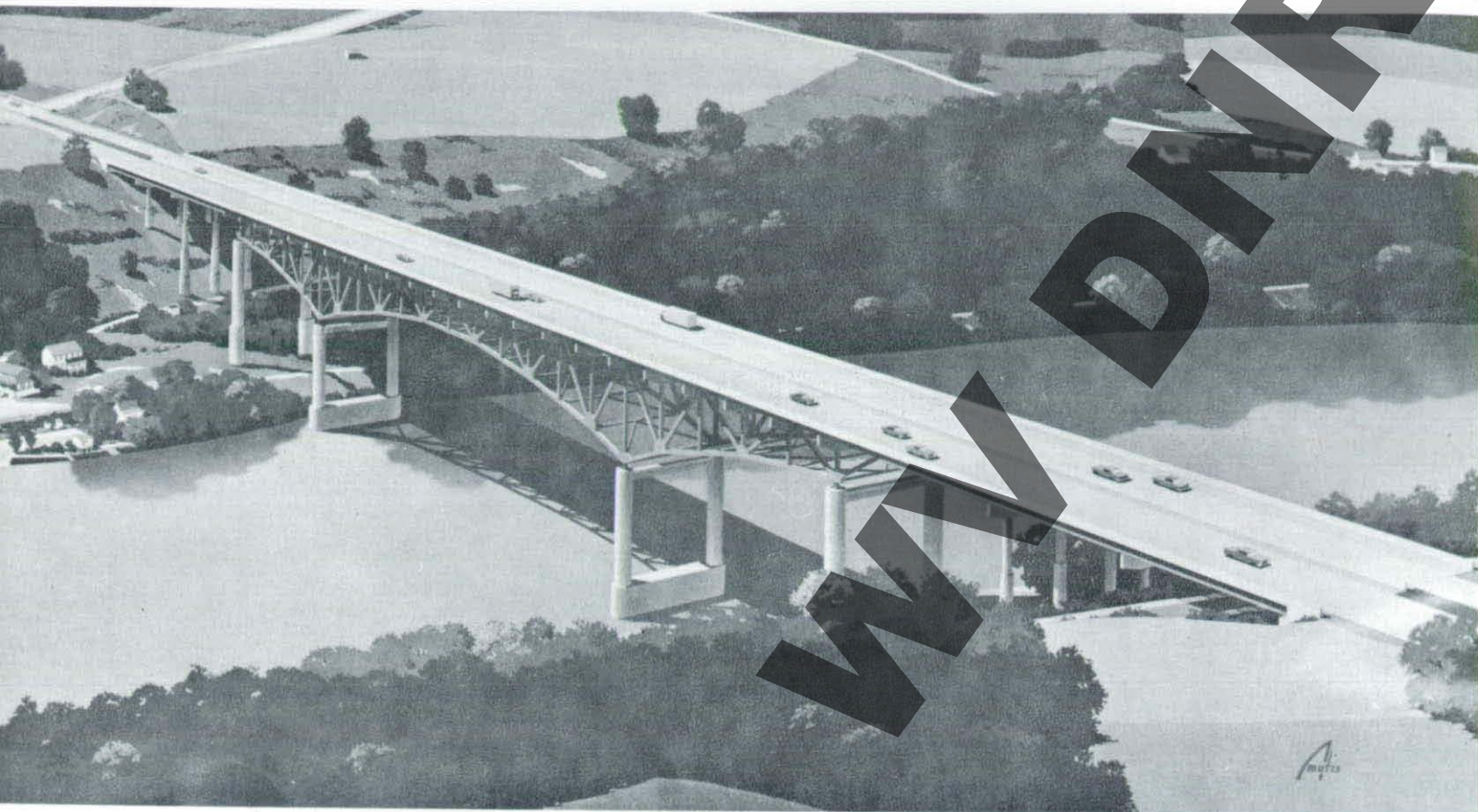
Ninety-two-year-old jail, built of white limestone at Huntersville. Today it attracts only walk-in and walk-out visitors.

ARNOUT HYDE JR.









# HIGHWAY TO OPPORTUNITY

JENNIFER DAMOUS

**LONG A DREAM** of the north-central residents of West Virginia is Interstate 79.

This highway, now under construction, will run from Erie, Pennsylvania, south through the Pittsburgh area to Washington, Pa., where it will intersect with the east-west Interstate 70. From here, the new north-south mileage will take the interstate to Morgantown, Fairmont, Clarksburg, Weston, and then on to Charleston,

where it will terminate by merging with Interstate 77.

While passing through the north-central part of the state, this highway will also intersect with four Appalachian Corridor Highways, those being Corridor E in the Morgantown area, Corridor D in the Clarksburg area, Corridor L in the Sutton area, and Corridor H in the Weston area.

In addition to being a heavily traveled highway, Interstate 79

will be an "economic lifeline" which will stimulate business, industry, tourism, employment and prosperity between Lake Erie and the Mountain State.

This road will contribute greatly to the development and processing of West Virginia's wealth of natural resources.

Since West Virginia produces considerable amounts of coal and timber, the added highway will help these two industries prosper.



The interstate will make transporting products easier and attract new industries.

Many tourists enjoy visiting scenic West Virginia and better roads will be a stimulus. With its many parks, forests and new interstate, West Virginia can become the most attractive tourist recreational area within the country's most populous region. The new highway will open up the vast region of scenic territory and large park facilities as a vacation area within easy access of the entire eastern part of the country.

**JACKSON'S MILL**, Sutton Dam, Watters Smith Memorial Park, and Cedar Creek State Parks are just a few of the many vacation spots in West Virginia which will be in easy access from the capital city of Charleston and other areas of the state through Interstate 79. With this modern road, we can

invite traffic which now bypasses that portion of the state.

This four-lane highway will reduce travel time for many motorists, whether they are travelers going to work, delivering supplies, or traveling for pleasure.

One shortened route used by many will be the direct route between Charleston and Morgantown. Motorists will save about 35 miles and nearly two hours of travel time between the two cities, where today the 177-mile trip takes an average of five hours.

Already more than 10 miles of Interstate 79 have been completed and opened to traffic in the Fairmont area. Another seven miles of the major north-south route are completed. Also, a segment in Monongalia County is scheduled to be opened later this year.

About 70 miles of the four-lane highway are currently under construction in Roane, Braxton, Lewis, Harrison, Marion, and Mon-

galia, while the remaining sections are undergoing final planning.

Prior to a recently announced cutback in federal aid funds, the Department of Highways had anticipated completing Interstate 79 from the Pennsylvania line to the Roane-Kanawha County line by 1972. However, Interstate 79 may be severely affected by the cutback.

Highway department officials presently are reviewing schedules to determine which projects can be placed under contract and which ones will have to be deferred. Some of the interstate's projects may be placed under contract as scheduled though the figure will be smaller than that originally planned due to the cutback in federal funds.

Despite the financial problems which now face the department, the super highway, which we need so desperately, should become a reality in the near future. ➤

#### REWARD FOR TRAVELERS

Wheeling Rotary Club has taken out multiple subscriptions to **WONDERFUL WEST VIRGINIA** magazine to use as gifts to be presented to visiting Rotarians who have traveled the farthest distance to attend their meetings each week. Most, obviously, are from out of state and the magazine makes an excellent remembrance of their trip to West Virginia and what a beautiful state it is.

Other clubs could make the editors happy by following their lead and subscribe to the magazine as gifts, prizes, awards and other club projects. There is no discount for the periodical costs as much or more to print than its price.

Strange Creek is named for a man by the name of Strange who became separated from his hunting party, got lost and apparently died from his inexperience as a woodsman. His remains were found about 40 miles away with portions of his shot pouch and rusted rifle. Before succumbing to hunger and exhaustion, he allegedly cut this verse in the bark of a tree: "Strange is my name, and I'm on strange ground, and strange it is that I can't be found."

Devil's Backbone, classic anticline along highway in Pocahontas County, attracts geologists, world-wide. The bowed rock formation is on Knapps Creek.

ARNOUT HYDE JR.



Restored log cabin is among historical features at Jackson's Mill in Lewis County. New Interstate 79 will bring more visitors to site.















# NATIONAL RIFLE ASSOCIATION OF AMERICA



## Resolution

**WHEREAS**, The NRA believes that wildlife species pursued in the course of the legitimate sport of hunting must be taken in fair chase, and

**WHEREAS**, Improper use of motorized air, water and land conveyances gives hunters an unfair advantage in the taking of wildlife of all types, and

**WHEREAS**, Undue harassment of wildlife with such conveyances can result in weakness and death of harassed species and is particularly inimical to wintering animals; now, therefore, be it

**RESOLVED**, That the Board of Directors of the National Rifle Association of America, assembled in Annual Meeting here this 7th day of April 1970, deploras and condemns the improper use of motorized air, water and land vehicles in the taking or harassing of wildlife and in the shooting of wildlife from such conveyances, and urges passage of proper legislation to curb such unsportsmanlike activities, and further urges that proper law be enacted permitting hunting to begin on the day following transportation to an area by air.

Attest:



Secretary







# Doves Are Coming

RALPH JARRETT

THERE MAY BE better ways to begin the upland game season than the way we did it that September afternoon at McClintic Wildlife Station, but you'll have to prove it to me.

It was a sunny fall day with the clean odor of freshly cut corn hanging heavy in the air, and not a breath of wind. The weeds had gone to seed and the maple bordering the field showed a touch of gold.

The dove flight was building when we joined other hunters who were strung out around the edges of the field. I had just hunkered down, partly hidden by a clump of brush, when the guns sounded.

The shooting scattered the doves. The birds crisscrossed back and forth across the field, flying higher and faster. When a few came barreling my way, I tried to remember how far to lead one when it's quartering away or coming straight at me. I shot and shot, but nothing dropped. When I reached for more shells there weren't any; the box was empty. Only the darting, dipping, swerving gray ghost of September could remain airborne amidst all that shot I had thrown.

Presently the sky was empty. The action stopped as abruptly as it had started. I picked up the empty hulls for re-loading, stuffed them back into the box and headed across the field.

The veteran dove hunter of our party was sitting on the tailgate

of his new wagon when I walked out of the field. When he asked, "How many did you get?" I threw him the box of empties without bothering to answer.

Of all the ballistics known to a hunter, I don't think anybody ever figured the lead-off of a dove. One of our group came pretty close when he said, "I add a foot with each passing season, because each year they get a little faster or I get a little slower."

The mourning dove is found in every state except Hawaii and Alaska, but only thirty-one states allow this fine game bird to be hunted. Under present migratory bird regulations, these states produce an average annual bag of nearly fifty-million birds. This is approximately 10% of the dove population, which is roughly calculated at a half-billion.

SCOUTING POTENTIAL shooting sites before opening day can be helpful. With the kind of set-up hunters have at McClintic, it isn't necessary. The abundance of food, water and gravel ties every bird in the area to its vicinity.

The McClintic Wildlife Station was originally site of a munitions plant during World War II. Now, it is producing food for the bird of peace. The wildlife plan initiated in 1950 called for construction of thirty-six ponds, strip planting of wildlife food shrubs, planting of food patches and borders of multi-flora rose with openings at various intervals to facilitate hunter access.

The dove is a migratory game bird and comes under federal jurisdiction. Each year the U.S. Bureau of Sport Fisheries and Wildlife sets the bag limit, shooting hours and number of days. However, the states are given a choice of from one to three split seasons between September 1, and January 15, with

a bag limit of twelve birds per day.

Occasional high singles were now flying over, a good indication that the late-afternoon feeding period was about to begin. When a bunch of eight or ten streaked in from the west, everyone knew that break time was over.

It was about four o'clock when we started out through the stubble of a huge cornfield cut around the edges and with a strip cut down the center. I had one box of shells plus a pocket full of loose ones Warnie had given me.

We hadn't tramped 100 yards across the stubble when I doubled on a pair that flushed from the corn. By the time we reached the other side of the field, I had another single. There were doves scattered all through the corn and more were coming.

They came hurtling in like gray streaks, the evening sun bright on their breasts. Instinctively I picked the first of the two gray blurs and fired. To my surprise the trailing bird folded and tumbled among the corn. With the lead-off figured out, my game bag began to swell.

The rest of the day was crammed with the same brand of wing-shooting thrills for everyone. We scanned the blue sky for that touch of gray until our necks were stiff. We shot at fast-flying, twisting, swerving doves until our shoulders were black and blue. We were enjoying this action at a time when most hunters haven't dusted off their gun.

Sportsmen wishing a similar piece of red-hot action this September should visit McClintic. Here you will receive a hunting permit and a map of the facility. Don't forget to plug the old shooting iron limiting yourself to three shots. It will save you money in more ways than one. ♦



Rare round barn—another is near Elkins—is on secondary road in Jackson County, near Medina.

Arnout Hyde Jr.



DNR 'bout





everyone likes animal crackers





## FLOWERS NAMED?

Here's a list of titles for the unnamed flowers on page 18 of the July issue:

**Wintercress, yellow rocket**—Jim Spriegel, Charleston

**Mustard Family, Yellow rocket**—Jean Shrout, Parsons

**Wintercress, Yellow rocket**—Grace Strother, Clarksburg

**Wild Mustard**—Mary Shreves, Nutter Fort

**Mustard Family, Black or White**—Stanley Wiles, Tunnelton

**Spring Cress**—Eugene Hutton, Elkins

**Winter Cress**—Evelyn Suttan, Arbovale

**Common Evening Primrose**—Jim Brown, Peterstown

**Hyssop O. T.** (Plants of the Bible)—Gladys Glover, Madison

**Wild Mustard, Yellow rocket**—Beatrice Quigley, Clarksburg

**Yellow Lady's Bedstraw**—Dick Ralston, Buckhannon

**Winter Cress**—Ruth Lilyquist, St. Albans

**Prairie-Rocket**—Mrs. Eugene Witt, Smoot

**Mustard Family, Winter Cress**—Mrs. Thompson Chandler, Charleston

Then came the deluge. We received over 200 replies from loyal readers for which we are most grateful. The consensus is that the mystery plant appears to be *Barbarea vulgaris* with the common names of winter cress or yellow rocket and this is confirmed by Dr. Earl L. Core, professor of botany at WVU.

West Virginia's capital, Charleston, was established by the 19th Legislature of Virginia in 1794 and was originally called Charles Town. The name was changed to Charleston in 1819.

Daniel Boone made his last survey in Kanawha County in 1798, probably the last he ever made.

John James Audubon is supposed to have visited West Virginia in 1810-1812.

First natural gas well in America was drilled by accident while searching for salt water by Capt. James Wilson in 1815.

First steamboat on the Kanawha River was the Robert Thompson which made it as far as Red House in 1819, but could get no farther upstream.

The last elk in the Kanawha Valley was killed in 1820.

Lingering black-eyed susans wave goodbye to summer in Tyler County.

ARNOUT HYDE JR.

William Tompkins struck natural gas near Burning Springs in 1841 and used it to boil the spring water to make salt. He was thus the first person in America to utilize natural gas for manufacturing.

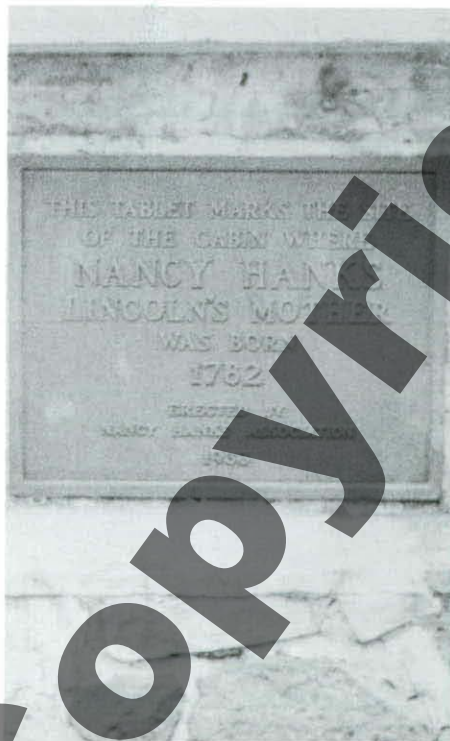
First commercial shipments of coal made on the Kanawha River began in 1855-1856.

First coke works and iron furnace on the New River were established in 1873.

Do you know that West Virginia has more whitewater rivers than all of New England combined?—Ward C. Eister, Ripley.

Did you know that whitewater canoeing will be recognized in the next Olympics?—Ward C. Eister, Ripley.

There are some who can live without wild things, and some who cannot. Now we face the question whether a still higher standard of living is worth its cost in things natural, wild and free.—Aldo Leopold









# MAN AND HIS HOME

## Part II — THEN CAME MAN

DR. A. J. HAAGEN-SMIT

California Institute of Technology

(Editor's Note: We are publishing this significant article in four parts because it is so timely with growing national concern about our environment)

ABOUT a million years ago, man came. His early existence must have been a precarious one. His home, probably a hole in the rocks, was all he had to protect himself from the rough environment and his enemies. His ability to master the art of making fire, and later the exploitation of fossil fuel supplies, freed hands and freed minds to think.

Living conditions improved, diseases were conquered, man prospered and his numbers increased rapidly. The caves became a village, the village a town, and today the towns have melted together in a new form, the megalopolis.

It is estimated that up to about the birth of Christ, there were only two people per square mile of earth's surface. Today there are about a hundred, and by the year 2000 this number will be doubled. Such a calculation, however, gives only part of the picture. People are not evenly spread over the face of the earth. On the contrary, in urban areas the density of our present-day population has to be counted in tens of thousands per square mile.

It was the industrial revolution—the use of energy from coal and fossil fuel in general—that made this population growth possible. It was like having an army of slave workers. These modern slaves are calories or kilowatt hours or British Thermal Units. The amount of energy available to a single person, expressed in human labor, would correspond to the work of a hundred slaves. It is like Aladdin's lamp. A simple rub and there appear the slaves. A simple turn of your key in the car and several hundred horsepower, corresponding to a thousand slaves, spring into action.

This is, of course, wonderful, but the trouble is that the energy slaves are not very neat. In the process of burning our fuels we use up oxygen, but—what is more objectionable—we also add small amounts of toxic material to the air. Soot and sulfurous fumes became, in historic times, the attributes of the devil.

Pollution of the air disturbed one of the kings in England in the Fourteenth Century so much that the use of a certain type of coal was forbidden. Infringers of the rule were fined and their ovens demolished in case of repetition. One unfortunate individual was condemned to death because he had infringed on the smoke rule three times.

Some 400 years later, Joseph Priestley discovered the essential, life-giving element of the air, oxygen, and he made the prophetic remark: "Who can tell but in time this pure air may become a fashionable article and luxury, hitherto only two mice and myself have had this pleasure, the privilege of breathing it. It may be peculiarly salutary to the lungs in certain morbid cases when the common air would not be sufficient to carry off the phlogistic putrid effluvia fast enough."

These remarks were undoubtedly inspired by the heavy pollution in the industrial towns of England, and his home town, Birmingham, was just as bad as London with its black fogs.

SOMETHING HAD HAPPENED, and what it was I like to illustrate with the nostalgic writings of Chateaubriand, the French ambassador to England, upon a return visit to London in the beginning of the Nineteenth Century:

"I have seen England with its old customs and its old prosperity, the small and lonely church with its tower, the cemetery, its small streets and the heather dotted with sheep. Where is it now?

"No more woods, less birds, less fresh air. Today its valleys are obscured by the fumes of smelters and factories. Oxford and Cambridge take on a look of ghost towns, their colleges and Gothic chapels are half abandoned. In their cloisters among the graves of the past lie, forgotten, the marble annals of people from long ago. Ruins guarding ruins."

Those blackened relics stand as the tragic sins of the new era, the industrial revolution, with its thoughtless use and mismanagement of our natural resources. A disregard of the most elementary right—the right to breathe clean air.

This, too, is the story that runs through the history of American municipalities. It is one of rapid growth in population and industrial activity, marked by wastefulness of material resources, carelessness in regard to the future, indifference to many things of life and a blind opposition toward anything that seems to threaten, in even a remote way, that which is termed prosperity.

Air pollution has become a normal aspect of urban living, and it has brought with it irritation of the throat, nose, and eyes, and in some instances has caused death.

The end of 1967 witnessed an exciting event when our U.S. population counter went to 200 million. The press was jubilant about the accomplishment: more people meant more business, more cars sold, more building and more advertising. To many this was prosperity; to others it was a day of gloom, a day that shows with deadly accuracy what our fate will be many years ahead. The population curve is going up without wavering.

Every 7-1/2 seconds a baby is born; every 17 seconds someone dies. This means five more persons every minute, or 300 per hour, 7,200 per day. There are no cease-birth agreements, no holidays in this business. In one year there are some two million more mouths to feed—a line of baby carriages stretching from New York to Los Angeles. With computer accuracy, we will celebrate the 300 million mark in only a few decades. Eighty-five percent of these people are concentrated in the big cities, and most of them are subject to some degree of air pollution. Burning of fuels adds particulate matter in the form of soot or ash, and gases





Even mountaintops, last legacy of clean air, are threatened by expanding air pollution.

such as carbon dioxide, carbon monoxide, oxides of nitrogen and of sulfur.

**THE CONCENTRATION** of people in cities has affected the meteorology or the climate within the built-up area. With many combustions going on, with a decreased wind circulation and with a poor reflection of the sunlight, the temperature inside the cities is raised considerably over the surrounding rural area. This increase in temperature may be several degrees Fahrenheit. An interesting byproduct of this rise in temperature is air circulation driving pollutants towards the center of the city.

Due to the polluted atmosphere, the solar energy received by the area may be in the order of 20 percent, and a loss of half of the visible radiation and two-thirds of the ultraviolet radiation is not rare at all.

Atmospheric inversion and conditions in the terrain that lead to a lack in ventilation occur far more frequently than most people realize, and it is not strictly necessary to have mountains to obstruct the flow of air. The streets in our

metropolitan areas act as small canyons, and on windless days relatively high concentrations of pollutants are found there.

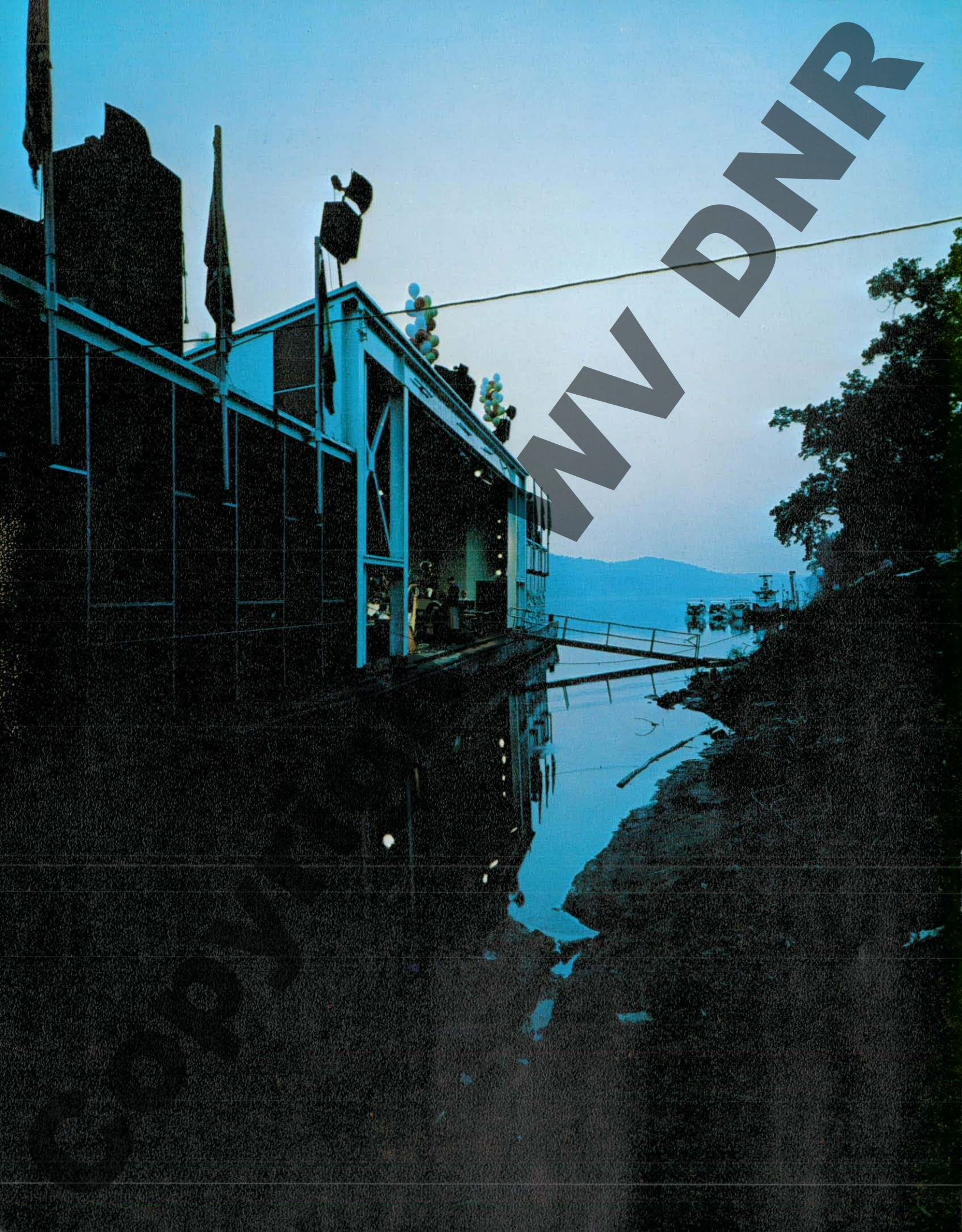
The pollution problems in our cities are aggravated by other larger scale meteorological phenomena. In many areas, especially on the Pacific Coast, the sinking or subsidence of air causes it to heat up slightly, and a condition is established by which the warm air is lying on top of a colder ground layer. This type of inversion layer ranges from a height of a few hundred feet to a few thousand. In other areas the earth's radiation of heat during the night causes strong ground inversion. In both cases, pollutants caught in this colder layer refuse to rise and, consequently, create air problems.

It has been established that this existence of an inversion base within 500 feet of the surface occurs on more than 50 percent of the nights in a year over most of the United States.

Under these conditions of limited ventilation, pollutants are held to the ground and are especially bothersome.

(To Be Continued)







## Bouquets

Dear Mr. Johnson:

This is just a brief note to congratulate you on a most attractive and interesting publication. We are pleased to have it available at the Charleston Area Chamber of Commerce to use in response to queries about the Charleston area and about West Virginia.

Keep up the good work!

Frank G. Sohn  
Executive Vice President  
Charleston Area  
Chamber of Commerce

Editor:

As a former West Virginian who will never get it out of my bones, I cannot do without Wonderful WEST VIRGINIA. It is the finest magazine of its kind I have ever seen. The only problem is a monthly twinge of homesickness when it arrives. However, don't stop it!

George M. Curry  
Nashville, Tennessee

Editor:

I just had to tell you what a beautiful book Wonderful WEST VIRGINIA is. Such a beautiful place, so many beautiful sights to see—some we have never seen.

This book brings out so many places for every one to see that are unable to visit them.

Keep up the beautiful work. I'm so proud to be from the State of West Virginia.

Mrs. Rubie Chandler  
Mantua, Ohio

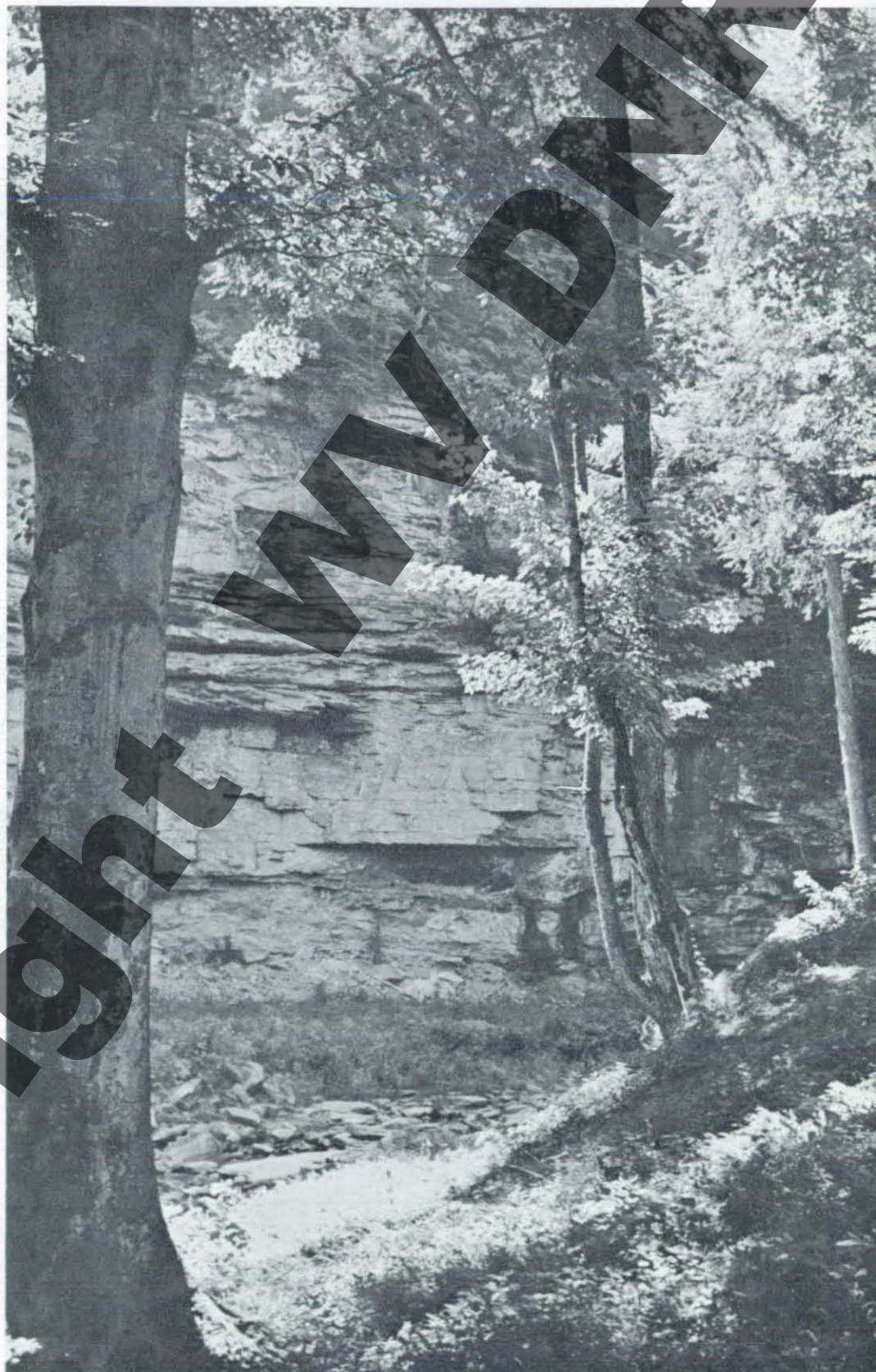
Dear Mr. Johnson:

My husband and I want to tell you how much we enjoy your magazine Wonderful WEST VIRGINIA. My husband's parents, who live in Fort Ashby, West Virginia, subscribed for it for my husband's birthday last year. We look forward to each issue and enjoy every page, especially the very beautifully colored pictures which bring out West Virginia's true beauty. We miss our home state and it's through your magazine that we can feel nearer, and relive old memories. Thank you and your staff for a lovely magazine.

Janet May  
Orlando, Florida

American Wind Symphony of Pittsburgh cruised down Ohio River and made call at Ravenswood. The talented group played evening concert aboard for delighted citizens.

ARNOUT HYDE JR.



COAL DISCOVERED HERE. John Peter Salley (Salling) and companions discovered coal near here in 1742 on their exploring trip from the Greenbrier River. They followed the Coal River to its junction with the Great Kanawha River at St. Albans.



## SAFE HUNTING IS NO ACCIDENT



Ira S. Latimer Jr.

Historically and traditionally, hunting is one of our finest and most useful kinds of outdoor recreation. Properly managed by professionals as it is in West Virginia, hunting is a sound tool in proper game management and revenue from license sales and allied income contribute to the whole broad field of conservation. One thing for sure, hunters "pay their bill."

Perhaps the worst public indictments against the sport of hunting are the seasonal tolls of deaths and injuries caused by the negligent handling of shotguns and rifles.

Last year in West Virginia, there were 76 hunting accidents, all from firearms, eleven of which were fatal. While 57 persons were shot by others, 19 were self-inflicted. Before the season of legal hunting last year, there were eight accidents afield, one of which was fatal.

In my opinion, a hunting rifle or shotgun is no more dangerous than an automobile; a firearm in good condition will shoot only in the direction it is pointed. In fact, a gun requires no more common sense in handling than a pleasure car.

With small game hunting in the offing, predictably there is the specter of hunting accidents. Yet, since the last hunting season, state conservation officers have literally spent thousands of hours instructing youngsters in safe gun handling as a part of its Hunter Safety Campaign. Based on statistics, many adults who have been hunting for years could benefit vitally by this same basic safety training for youngsters.

Through all the news media available, the Department of Natural Resources has stressed the wearing of safety clothing, notably blaze orange. National magazines and other publications regularly publish the obvious "do's" and "don't's" in handling firearms.

One final suggestion, unless you are shooting at marks, don't point a loaded gun at anything you do not intend to kill.

Sportsmen, let's make this hunting season the safest ever in West Virginia!

IRA S. LATIMER JR.

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Legendary smallmouth bass stream, lower Cranberry River, hides lunker brown trout, too.

ARNOUT HYDE JR.









*Yellow wildflowers add to pastoral beauty in Doddridge County.*

ARNOUT HYDE JR.